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Alfred A. Kahner III

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LIU & LIU

444 S. FLOWER STREET SUITE 1750

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EXAMINER

JOYNER, KEVIN

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/676,908	Applicant(s) KAHNER ET AL.	
	Examiner KEVIN C. JOYNER	Art Unit 1797	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 17 November 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 45-54, 56-84 and 94-103 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 45-54, 56-84 and 94-103 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

FINAL ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 45-54, 56, 57, 61, 65-67, 77-79, 81, 83 and 84 rejected under 35 U.S.C. 103(a) as being unpatentable over Smith et al. (U.S. Patent No. 5,893,216) in view of Cole (U.S. Patent No. 5,931,014).

Smith discloses a method for abating contamination present within a cavity in a structure, comprising the steps of:

Exhausting contaminated air in the cavity in a controlled manner through one or more outlet openings in the structure that are in flow communication with the cavity (column 1, lines 22-28); and

Treating a contaminated surface in the cavity in a manner that is substantially non-destructive to the contaminated surface (column 3, lines 40-44) as disclosed in columns 2 and 3 as well as Figures 3-9. Smith does not appear to disclose that the method further comprises the step of returning the exhausted air in a closed loop process. Cole discloses a method for abating contamination present in a structure comprising the steps of: exhausting contaminated air in the structure in a controlled manner and treating the contaminated surface in the structure in columns 1 and 2. The

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reference continues to disclose that the method further comprises the step of returning the exhausted air in a closed loop process in order to remove air particulates in the exhausted contaminated air and return decontaminated air to the structure (column 2, lines 33-65; column 3, lines 10-30). More specifically, as disclosed in column 2, line 44-50, exhausted air from the ductwork enters the ozone generating unit to supply ozone to the air. The ozone and air are then returned to the air cavity in a closed loop process. This is provided in order to allow the air in the cavity to be supplied with ozone and subsequently returned to the cavity in order to decontaminate the air and the surfaces in the cavity. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the method of Smith to include the step of returning the exhausted air in a closed loop process in order to allow the air in the cavity to be supplied with ozone and subsequently returned to the cavity in order to decontaminate the air and the surfaces in the cavity as exemplified by Cole.

Regarding claim 46 Smith also discloses that the treating step comprises killing, destroying or removing at least a substantial portion of contaminants present on the contaminated surface with a biocide of as one of a mist, powder, granule, spray, vapor, foam, fog, gas, and liquid (concerning claim 47 & 48; column 3, lines 40-44).

Concerning claims 49-51, Smith also discloses that the cavity is enclosed by the structure and is one of a wall, a ceiling or a floor (column 4, lines 24-26) and that the structure is one of a permanent, semi-permanent and temporary structure (column 1, lines 10-37). Concerning claims 52 and 53 the reference continues to disclose that the exhausting step limits flow of contaminated air into the ambient environment and that at

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least a portion of the contaminated air from the cavity is removed through said one or more outlet openings (column 3, lines 25-45).

Regarding claims 56 and 57, Smith also discloses that the exhausting step comprises the step of establishing a pressure gradient by at least drawing air from within the cavity through said one or more outlet openings and causing movement of air into the cavity through one or more inlet openings provided in the structure in flow communication with the cavity (column 3, lines 24-37). Regarding claims 61, 65 and 77, the reference continues to disclose that the biocide is introduced in to the cavity following the establishment of a pressure gradient, and that the treating step is taken in conjunction with the exhausting step (column 3, lines 41-44). This is provided by the disclosure that the antimicrobial agent is **introduced** into the airflow. Therefore, the airflow begins and continues while the agent is introduced. Concerning claims 66 and 67, Smith discloses that the biocide is ozone (column 3, lines 40-45). Regarding claims 78, 79 and 81, Smith also discloses that the substance is a bacteria in column 1, lines 30-35.

Regarding claim 83, Smith discloses a method for abating contamination of a contaminate surface of an open structure, comprising the steps of:

Creating a temporary enclosing structure substantially or completely enclosing a cavity, at least one portion of the structure is comprised of the contaminated surface of the open structure; and

Abating contamination present within the cavity in accordance with the method as in claim 45 (column 2 and 3; Figures 3-7 and 9). More specifically, inlet and outlet

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openings are formed in the walls that are contaminated with bacteria, which provides an open structure. The openings are enclosed by connecting nozzles to the openings to remove the bacteria from inside the walls as disclosed in column 3, lines 20-45. The nozzles are disconnected after the decontamination occurs which creates an open structure again. Thus, the structure is an open one that is temporarily enclosed by the connection of the nozzles to the inlet and outlet openings. Concerning claim 84, as broadly defined, Smith also discloses that the creating step comprises the step of providing a hood in conjunction with the open structure to form the enclosing structure (Figure 8; column 4, lines 20-40).

With regard to claim 54, Smith does not appear to disclose that the method further comprises the step of removing contaminants from the contaminated air by filtration. Cole discloses a method for abating contamination present in a structure comprising the steps of: exhausting contaminated air in the structure in a controlled manner and treating the contaminated surface in the structure in column 1, lines 38-49. The reference continues to disclose that the method further comprises the step of removing contaminants from the contaminated air by filtration (column 2, lines 30-34). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the method of Smith to include the step of removing contaminants from the contaminated air by filtration in order to remove air particulates in the exhausted contaminated air as exemplified by Cole.

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3. Claim 58 is rejected under 35 U.S.C. 103(a) as being unpatentable over Smith et al. (U.S. Patent No. 5,893,216) in view of Cole (U.S. Patent No. 5,931,014) as applied to claim 57 above, and further in view of Guasch (U.S. Patent No. 5,555,643).

Smith is relied upon as set forth above with respect to claim 57. Smith does not appear to disclose that a pliable seal is provided to seal the outlet opening to a device for drawing air from the cavity. Guasch discloses a method for the exhausting a cavity in a structure comprising nozzles attached to the structure to exhaust air in the cavity in said structure (Figure 1). The reference continues to disclose that the nozzle comprises a pliable seal (68) that is provided in order to ensure the connection between said structure and said nozzle arrangement (column 6, lines 32-38). Thus, it would have been obvious to one of ordinary skill in the art at the time of the invention to include a pliable seal in the method of Smith in order to ensure the connection between the nozzle and the structure as exemplified by Guasch.

4. Claims 59 and 60 are rejected under 35 U.S.C. 103(a) as being unpatentable over Smith et al. (U.S. Patent No. 5,893,216) in view of Cole (U.S. Patent No. 5,931,014).

Claims 59 and 60 further requires that the outlet openings are 0.5 inches to 1.5 inches in diameter and that the inlet openings are 0.25 to 1.0 inches in diameter. It would have been well within the purview of one of ordinary skill in the art to optimize the diameter of the inlet and outlet openings in order to maximize the pressure gradient that is created by the system. Only the expected results would be attained.

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5. Claims 62-64 are rejected under 35 U.S.C. 103(a) as being unpatentable over Smith et al. (U.S. Patent No. 5,893,216) in view of Cole (U.S. Patent No. 5,931,014) as applied to claim 45 above, and further in view of Roy (U.S. Patent No. 5,968,401).

Smith is relied upon as set forth above. Smith does not appear to disclose that the treating step comprises applying microwaves that are capable of penetrating into the cavity in which the contaminants are present, and that are capable of killing or destroying at least a substantial portion of the contaminants by heating the contaminants. Roy discloses a method for abating contamination present within a cavity in a structure comprising the step of: treating a contaminated surface in the cavity in a manner that is substantially non-destructive to the contaminated surface. The reference continues to disclose that the treating step comprises applying microwaves that are capable of penetrating into the cavity in which the contaminants are present, and that are capable of killing or destroying at least a substantial portion of the contaminants by heating the contaminants in column 2, lines 1-30. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the method of Smith to utilize microwaves that are capable of penetrating into the cavity in which the contaminants are present, and that are capable of killing or destroying at least a substantial portion of the contaminants by heating the contaminants in order to effectively kill, destroy, or remove the contaminants from the cavity as exemplified Roy.

6. Claim 68 is rejected under 35 U.S.C. 103(a) as being unpatentable over Smith et al. (U.S. Patent No. 5,893,216) in view of Cole (U.S. Patent No. 5,931,014) as applied to claim 47 above, and further in view of Croan et al. (U.S. Patent No. 5,356,624).

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Smith is relied upon as set forth above. Smith does not appear to disclose that the biocide comprises an active ingredient of disodium octoborate tetrahydrate. However, an active ingredient of disodium octoborate tetrahydrate is a conventionally known and commercially used product for the abatement of contamination present in a structure. Croan discloses an example of this wherein the reference teaches a method for the abatement of contamination present in a structure (column 3, lines 52-57; column 4, lines 10-25) wherein a biocide is present and comprises disodium octoborate tetrahydrate as an active ingredient. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the method of Smith to utilize disodium octoborate tetrahydrate as an active ingredient as the biocide, as such is conventionally known and commercially used against contaminants such as mold as exemplified by Croan.

7. Claims 69-72, 75, 76, 80 and 82 is rejected under 35 U.S.C. 103(a) as being unpatentable over Smith et al. (U.S. Patent No. 5,893,216) in view of Cole (U.S. Patent No. 5,931,014) as applied to claims 45, 46, 79 and 82 above, and further in view of White (EP 0 355 765 A2).

Smith is relied upon as set forth in reference to claim 45 above. Smith does not appear to introduce a lock-down material. White discloses a method of inhibiting contaminants such as parasitic spores and spore producing organisms (concerning claims 80 and 82; page 3, lines 10-22) in structures with cavities (page 2). The reference continues to disclose that the method comprises the step of treating the structure with a spray (concerning claim 72; page 77, line 14) of lockdown material that

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provides a barrier to contaminants on the surface of the structure enclosing the cavity (concerning claim 71) in order to inhibit the contaminants (page 3, lines 23-35). More specifically, a coating is provided to the cavity in the structure in order to inhibit the spread of the contaminants. More specifically, a coating is provided to the cavity in the structure in order to inhibit the spread of the contaminants, wherein the coating produces a biostatic affect that prevents the penetration of said coating (For further explanation, please see the **Response to Arguments** section of this Office Action).

Regarding claim 70, since the method of Smith involves establishing a pressure gradient in the cavity to facilitate the dispersal of the material utilized in the treating step, then it is known that the same pressure gradient is utilized to facilitate the dispersal of material in this treating step as well, the dispersal comprising the lock-down material.

Regarding claim 75, while Smith discloses that the treating step comprises the killing step (column 3, lines 20-40); Smith does not appear to disclose that the treating step comprises the applying step. As disclosed in the previous paragraph, White discloses a method of inhibiting contaminants with a treating step comprising applying a material to limit the dispersal of contaminants within a cavity (page 3, lines 22-35) in order to inhibit contaminants from spreading throughout the structure. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the treating step of Smith to include a step of applying a lock-down material to limit the dispersal of contaminants within a cavity in order to inhibit contaminants from spreading throughout the structure as exemplified by White (For further explanation, please see the **Response to Arguments** section of this Office Action). Concerning

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claim 76, In *In re Burhans*, 154 F.2d 690, 69 USPQ 330 (CCPA 1946) the courts held that the selection of any order of performing process steps is *prima facie* obvious in the absence of new or unexpected results. Thus, the limitations concerning the applying material step in conjunction with the killing step is considered to be unpatentable in view of Smith and White (See MPEP 2144.04 IV (C)).

8. Claims 73 and 74 are rejected under 35 U.S.C. 103(a) as being unpatentable over Smith (U.S. Patent No. 5,893,216) in view of Cole (U.S. Patent No. 5,931,014) and White (EP 0 355 765 A2) as applied to claims 54-55 and 69-72 above, and further in view of Kourai et al (U.S. Patent No. 4,826,924).

Smith in view of Cole and White is relied upon as set forth above. Smith in view of Cole and White does not appear to disclose that the lock-down material includes the material of styrene. Kourai discloses an antibacterial polymer that is utilized against mold spores in floor material, ceiling material and building material (column 1, lines 10-20). The reference continues to disclose that the antibacterial includes the substituted ethylene monomer of styrene (column 1, lines 50-55) in order to provide an enhanced antibacterial effect and improve the durability of the product. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the method of Smith in view of White to include in the lock-down material, the material of styrene in order to enhance the antibacterial effect against molds and provide longer durability for the material as exemplified by Kourai.

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9. Claims 94-98 are rejected under 35 U.S.C. 103(a) as being unpatentable over Smith (U.S. Patent No. 5,893,216) in view of Cole (U.S. Patent No. 5,931,014) as applied to claim 45 above, and further in view of Smith (U.S. Patent No. 5,155,924).

Smith '216 in view of Cole is relied upon as set forth above. Smith '216 in view of Cole does not appear to disclose returning the previously exhausted air to the cavity in a closed loop process by coupling an air suction device exterior of the structure to create a closed loop air flow through the cavity. Smith '924 discloses a method for treating a cavity in a structure comprising the steps of exhausting the air in the cavity in a controlled manner through outlet openings in the structure and treating the surface in the cavity in a manner that is substantially non-destructive to the surface (column 2, lines 10-45; Figure 1). The reference continues to disclose that the returned previously exhausted air is provided in a closed loop process by coupling an air suction device 20 exterior of the structure to create a closed loop air flow through the cavity, wherein the air suction device is coupled to the structure by external conduits coupling flow input and output of the suction device to the structure to create the closed loop air flow through the cavity, recirculating air evacuated from the cavity back into the cavity (concerning claim 95; Figure 5, columns 2 and 3). The closed loop recirculation system comprising a suction device exterior of the structure and conduits coupling flow of input and output air to the suction device and to the structure is provided in order to remove moisture laden air from the structure and return dehumidified, hot air into the structure to further dry the cavity in the structure (column 2, lines 25-45). Thus, it would have been obvious to one of ordinary skill in the art at the time of the invention to utilize the

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closed loop configuration and process of Smith '924 in the process of Smith '216 in view of Cole in order to remove moisture laden air from the structure and return dehumidified, hot air into the structure to further dry the cavity in the structure as exemplified by Smith '924.

Concerning claim 96, Smith '216 continues to disclose that external conduits are coupled to the structure by creating holes in an external surface of the structure, and coupling the external conduits to the holes (column 3, lines 7-20). With regard to claim 97, the structure of Smith '216 is an existing closed structure to be abated (Figure 6). With regard to claim 98, the external conduits of Smith '216 and Smith '924 will be removed after abatement of contamination since each apparatus is a temporary and portable apparatus.

10. Claims 99-101 are rejected under 35 U.S.C. 103(a) as being unpatentable over Smith et al. (U.S. Patent No. 5,893,216) in view White (EP 0 355 765 A2).

Smith discloses a method for abating contamination present within a cavity in a structure, comprising the steps of:

Exhausting contaminated air in the cavity in a controlled manner through one or more outlet openings in the structure that are in flow communication with the cavity (column 1, lines 22-28); and

Treating a contaminated surface in the cavity in a manner that is substantially non-destructive to the contaminated surface (column 3, lines 40-44) as disclosed in columns 2 and 3 as well as Figures 3-9. Smith does not appear to introduce a lock-down material that provides a barrier against penetration of contaminants through the

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barrier to and from at least a portion of the contaminated surface of the structure enclosing the cavity. White discloses a method of inhibiting contaminants such as parasitic spores and spore producing organisms (page 3, lines 10-22) in structures with cavities (page 2). The reference continues to disclose that the method comprises the step of treating the structure with a spray (concerning claim 101; page 77, line 14) of lockdown material that provides a barrier against penetration of contaminants through the barrier to and from at least a portion of the contaminated surface of a structure enclosing a cavity (page 3, lines 21-27; page 4, lines 10-15). More specifically, a coating is provided to the cavity in the structure in order to inhibit the spread of the contaminants, wherein the coating produces a biostatic affect that prevents the penetration of said coating (For further explanation, please see the **Response to Arguments** section of this Office Action). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the treating step of Smith to include a step of applying a lock-down material to limit the dispersal of contaminants within a cavity in order to inhibit contaminants from spreading throughout the structure as exemplified by White.

Regarding claim 100, since the method of Smith involves establishing a pressure gradient in the cavity to facilitate the dispersal of the material utilized in the treating step, then it is known that the same pressure gradient is utilized to facilitate the dispersal of material in this treating step as well, the dispersal comprising the lock-down material.

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11. Claims 102 and 103 are rejected under 35 U.S.C. 103(a) as being unpatentable over Smith (U.S. Patent No. 5,893,216) in view of White (EP 0 355 765 A2) as applied to claim 99 above, and further in view of Kourai et al (U.S. Patent No. 4,826,924).

Smith in view of White is relied upon as set forth above. Smith in view of White does not appear to disclose that the lock-down material includes the material of styrene. Kourai discloses an antibacterial polymer that is utilized against mold spores in floor material, ceiling material and building material (column 1, lines 10-20). The reference continues to disclose that the antibacterial includes the substituted ethylene monomer of styrene (column 1, lines 50-55) in order to provide an enhanced antibacterial effect and improve the durability of the product. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the method of Smith in view of White to include in the lock-down material the material of styrene in order to enhance the antibacterial effect against molds and provide longer durability for the material as exemplified by Kourai.

Response to Arguments

12. Applicant's arguments filed November 17, 2008 have been fully considered but they are not persuasive.

Applicant's principle arguments are:

a) Smith is directed to a wall-drying system, which distributes air into a wall to dry the wet areas within the wall. As such, it would make no sense for Smith to recirculate the air with heavy moisture extracted from the inside of the wall, back to the

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inside of the wall. In fact, according to Smith, the system includes an air blower blowing air into a wall to be dried, and a vacuum mechanism to draw air from the wall. It specifically discloses that the drawn air is simply routed to ambient pressure, preferably out of the building. Accordingly, Smith in effect teaches away from recirculating wet air drawn from the wall cavity back to the wall cavity in a closed loop process.

It is first noted that Smith does disclose the closed loop process. As shown in Figures 3, 5 and 6, the previously exhausted air of Smith is returned to the cavity in a closed loop process as broadly defined. Figures 3 discloses that an air supply blower 50' takes the air from a room and distributes said air to a ring conduit 33 that evenly distributes the air in the wall throughout the room (column 3, lines 54-64). As shown in Figure 6, the distributed air is then vacuumed from the wall by a vacuum 51, and is dispersed back into the room (Although Smith discloses a preferable embodiment that transfers the exhausted air out of the room, Smith also discloses an embodiment where the air is displaced back into the room as shown in Figure 7 and disclosed in column 3, lines 37-54.) As shown in Figures 3 and 7, the previously exhausted air that is sent back into the room will intrinsically be ultimately sucked back into the supply blower and returned to the wall. Thus, the air is returned in a looping process. Since the room is an enclosure that allows the air to recirculate from the vacuum to the supply blower, then a closed loop process is provided as broadly defined. Therefore, Smith does not teach away from the limitation, as the reference intrinsically teaches said limitation.

Nonetheless, Smith does not teach away but merely suggests routing the exhausted air to an ambient pressure, **not** to make sure that the exhausted air is kept

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from recirculating into the cavity. Furthermore, Cole provides motivation to provide a closed loop process to return the previously exhausted air. As set forth in column 2, lines 33-57 and Figures 1 and 2, exhausted air from a trapped air cavity is provided with ozone and recirculated to the cavity, in order to provide a decontaminant to the cavity.

b) There is no teaching or motivation to modify Smith in view of Cole. On the outset, Cole is non-analogous art to Smith. Cole is directed to ductwork purification systems having a built in recirculation configuration for cleaning the ductwork of a refrigeration system for food items. Smith is directed to an add-on wall-drying system for drying moisture laden areas inside a wall. In the context of the invention, it is unreasonable to refer to the cleaning of ductwork in a refrigeration system where a recirculation system is built in part of the system to be analogous to the add-on wall-drying system of Smith. Further, there is no disclosure of the incentive to modify Smith with the air recirculation teaching of Cole, as recirculation of moist air in Smith would not be effective in drying the wall, which is the specific objective of Smith

Smith's particular embodiment, which is described in detail, is not the object of the invention. The main idea of the Smith invention is the utilization of a drying system on areas that are moisture laden such as, "trapped-air cavities, or wet areas" as set forth in column 2, lines 40-45, wherein Smith continues to disclose that said moisture laden areas are susceptible to contamination of bacteria that may be decontaminated with ozone (column 3, lines 40-44; column 4, lines 18-21). Although the particular embodiment of Cole describes a decontamination process on refrigeration cabinets, the

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main aspect of Cole comprises the decontamination of a moisture laden area such as ductwork (i.e. a trapped air cavity) by utilizing ozone (column 1, lines 4-6; column 1, lines 35-40). Therefore, the two are analogous in that each are directed to decontaminating moisture laden areas with trapped air cavities. Cole provides proper motivation to recirculate the air of Smith in that the closed loop process allows a decontaminant to be added to the cavity in order to decontaminate said cavity without exposing the atmosphere to bacteria as exemplified by Cole.

c) The Applicant respectfully submits the combination of Smith and White would not obtain the present invention as claimed in newly independent claim 71. White does not teach providing the recited barrier against penetration of contaminants through the barrier to and from the contaminated surface. White is directed to bounding antimicrobials to kill organisms on contact and continue to kill organisms without being diffused or leached from the surface. "Thus, the bound antimicrobial leaves behind an effective level of active ingredient and is able to control a broad spectrum of microorganisms..." The antimicrobial agent disclosed in White imparts a durable, wash resistant, broad spectrum biostatic surface antimicrobial finish to a substrate. However, the antimicrobial finish does not "lock down" contaminants in the context of the present invention.

White specifically discloses that the, "invention includes the feature of lowering the threshold level of microorganisms by **immobilizing** on surfaces and **bonding** thereto a **coating** of the immobilized antimicrobial organosilicon quaternary ammonium

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compound..." and that the "antimicrobial agent imparts a durable, **wash resistant**, broad spectrum **biostatic surface antimicrobial finish to a substrate.**" (page 3, lines 22-25; page 4, lines 10-12). Thus, White specifically discloses a surface finish coating that does not separate from the substrate, wherein the coating kills microorganisms located on the substrate. Further, White discloses that the coating produces a **biostatic surface finish**, which equates to a coating that does not allow penetration of bacteria through the coating. Further evidence is provided by Dalla Riva Toma (U.S. Patent No. 6,054,504) in the conclusion of this Office Action. Therefore, White discloses a barrier against penetration of contaminants to and from a surface.

d) Further, there is no apparent reason to combine Smith and White. Smith is directed to an add-on wall drying system, which pumps air into the wall and evacuates moist air from the wall and dumping the moist air into ambient outside of the building. On the other hand, White is directed to antimicrobial finish.

As noted throughout the Office Action, Smith discloses that the trapped air cavities may become contaminated with bacteria, and therefore would need to be decontaminated. White is specifically disclosed for utilizing a special decontaminant on areas such as ceilings, ventilation ducts, conduits, walls and partitions (page 75) that may be contaminated with bacteria, mold, or mildew in order to reduce allergy or asthma conditions (page 2). Therefore, the two references are properly combinable.

Conclusion

13. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Dalla Riva Toma (U.S. Patent No. 6,054,504) provides evidence throughout the disclosure that a biostatic coating does not allow penetration of contaminants through the barrier.

14. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to KEVIN C. JOYNER whose telephone number is (571)272-2709. The examiner can normally be reached on M-F 8:00-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jill Warden can be reached on (571) 272-1267. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Elizabeth L McKane/
Primary Examiner, Art Unit 1797

KCJ